

Further, with regard to the obviousness type rejection, Applicants traverse the rejection for the additional reason that there is no motivation provided by the prior art references themselves or the prior art generally to combine various aspects of the Dail and Varanasi.

In response to previously asserted arguments for patentability, the Office Action has now asserted that, while Dail may differ from details in the specification of the present application, the claim language does not sufficiently distinguish the invention from that of Dail. More specifically, the Office Action correctly recognized that Dail teaches that the disclosed invention is applicable to wireless network in addition to cable embodiments (Dail, col. 1, lines 18-21 and col. 5, lines 49-55). However, that teaching merely provides the possibility of replacing a cable with a wireless link in the disclosed embodiments. With regard to all other teachings of Dail regarding the operation and structure of the cable embodiments, the teachings remain the same regardless of whether a cable or a wireless link is used.

DAIL FAILS TO TEACH OR SUGGEST CLAIMED
COMMON TRAFFIC CHANNEL ASSIGNMENT

The Office Action also asserted that Dail actually discloses assignment of one common traffic channel to two or more simultaneous mobile communication network calls or sharing of capacity of the common traffic channel between two simultaneous calls, referring to Dail's Fig. 3. However, in Fig. 3, a link 102 is a coaxial cable or optical fiber (or possibly a wireless link) for broadcast service from the head end, or to selective transmission to/from certain stations, using well known addressing techniques (see, col. 7 lines 19-28). The associated addressing scheme is illustrated in Figs. 5 and 6. More specifically, in upstream communication each time slot contains data which defines a kind of "packet" which is provided with the source address of the station transmitting the specific data unit. Similarly, in the downstream direction, the data in a time slot defines a "packet" provided with a destination address of the station to which the "packet" and the payload is intended to be directed.

Thus, in Dail, the communication is a kind of "packet mode communication" in ATM time slots shared by multiple stations. Thus, channels are not exclusively assigned to a station; rather, a station is offered a guaranteed average transmission capacity and quality of service on the link 102 for calls. The data is transmitted in individually routable or switchable data units, or packets, each containing the address information required for routing or switching.

That configuration is contrary to the claimed invention wherein a traffic channel is assigned exclusively to a mobile station and is shared by two or more calls of the same mobile station. In fact, Dail expressly seeks to avoid allocating the maximum bandwidth, such as a TDMA slot, to a station for entire duration of a call, because doing so does not provide enough flexibility in using available bandwidth and does not take advantage of the statistical nature of the traffic (see Dail, col.1, lines 34-43 and col. 2, lines 49-57). Thus, Dail fails to teach or suggest assigning one common traffic channel to two or more simultaneous mobile network calls of the mobile station and sharing the capacity of the common traffic channel between the simultaneous calls.

DAIL FAILS TO TEACH OR SUGGEST CLAIMED PREFERENTIAL BANDWIDTH ALLOCATION OF COMMON TRAFFIC CHANNEL

The Office Action also asserted that, contrary to previously asserted arguments, Dail teaches favouring transparent calls over non-transparent calls. More specifically, the Office Action asserted that, in Dail, STM and ATM traffic is transferred into separate regions, which do not share a common traffic channel. Thus, the Office Action has asserted that these regions represent the allocation or bandwidth of a given channel. However, that assertion is erroneous.

In Dail, STM and ATM traffic is transferred in totally separate regions and timeslots within the frames. However, one of ordinary skill in the art would recognize that frames cannot be considered to be “traffic channels.”

Nevertheless, even assuming for argument’s sake only, that Dail’s timeslots could be considered equivalent to a traffic channel, a frame would then be comprised of multiple time slots. Thus, ATM and STM would have to be transferred in different regions of a frame, i.e., in different time slots, and would not thereby share a common traffic channel in Dail.

Therefore, Dail fails to teach favouring transparent calls or connections over non-transparent calls or connections in allocation of the capacity of the common traffic channel.

VARANASI FAILS TO REMEDY DEFICIENCIES OF DAIL

Varanasi fails to remedy the deficiencies of Dail because Varanasi merely teaches a method for wireless communication utilizes available channel bandwidth when multiplexing a plurality of user signals over a communication channel. The method utilizes signal power characteristics as a signature to multiplex and de-multiplex the plurality of signals applied to the communication channel.

Therefore, Varanasi fails to disclose, teach or suggest assigning one common traffic channel to two or more simultaneous mobile network calls of the mobile station and sharing the capacity of the common traffic channel between the simultaneous calls or favouring transparent calls or connections over non-transparent calls or connections in allocation of the capacity of the common traffic channel.

ONE OF ORDINARY SKILL IN THE ART WOULD NOT HAVE COMBINED THE TEACHINGS OF DAIL AND VARANASI

Further, with regard to the obviousness type rejection, Applicants traverse the rejection for the additional reason that there is no motivation provided by the prior art references themselves or the prior art generally to combine various aspects of the Dail and Varanasi.

In rejecting claims under 35 U.S.C. § 103(a), the Office bears an initial burden of presenting a *prima facie* case of obviousness. A *prima facie* case of obviousness is established only if there is a suggestion or motivation to combine reference teachings; a reasonable expectation of success; and the prior art references, when combined, teach or suggest all the claim limitations. If the Office fails to establish a *prima facie* case, a rejection is improper and will be overturned. See *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993). “If examination . . . does not produce a *prima facie* case of unpatentability, then without more, the Applicant is entitled to the grant of the patent.” *In re Oetiker*, 977 F.2d 1443, 1445-1446, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

As admitted by the Office Action, Dail fails to disclose the limitation that the common traffic channel is a common TDMA or CDMA traffic channel. However, the Office Action asserted that Dail clearly indicates that his invention applies to wireless systems, and that the use of TDMA or TCDMA in wireless system is well known. The Office Action further asserted that Varanasi, at col. 4, lines 14-18, discloses that TDMA and CDMA are well-known multiple access techniques for wireless systems. As a result, the Office Action asserted that one of ordinary skill in the art would have found it obvious to apply TDMA or CDMA in Dail based on the teachings of Varanasi.

Applicants submit that these statements of motivation are nothing more than speculative statements of hypothetical result formed based on information impermissibly derived from Applicants’ own specification.

Dail teaches that the TDMA method for assigning bandwidth to stations is unsatisfactory (column 1, lines 34.-43). Similarly, Varanasi teaches that TDMA and CDMA are unsatisfactory multiple access techniques in the point of view utilizing the channel bandwidth (column 1, lines 29-56). Therefore, Varanasi proposes a new bandwidth efficient multiple access referred to as BEMA. However, neither Dail nor Varanasi provides any motivation for a person skilled in the art to act against the teachings of Dail and Varanasi and to apply TDMA or CDMA channels in Dail.

Thus, the asserted motivation to combine is merely speculative conclusory statements of result. There are no teachings or suggestions of the advantageousness of the hypothetical modifications set forth by the Office Action. Moreover, there is no indication, other than the hindsight conclusions of the Office Action, that the hypothetical combinations of the cited prior art would provide the results identified by the Office Action.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. There being no teaching or suggestion of the advisability of combining the reference teachings as the Office Action has hypothesized, the motivation to combine the references fails to adequately support the rejection to provide a *prima facie* case of obviousness. Thus, the 103 rejection is traversed.

As a result, the claimed invention is patentable over the cited prior art because Dail fails to disclose, teach or suggest all the features recited in the rejected claims, one of ordinary skill in the art would not have combined Dail with Varanasi and, even if he did, the combined teachings would fail to disclose, teach or suggest all the features recited in the rejected claims. Accordingly, all pending claims are patentable.

All rejections having been addressed, Applicant requests issuance of a notice of allowance indicating the allowability of all pending claims. If anything further is necessary to place the application in condition for allowance, Applicant requests that the Examiner contact Applicant's undersigned representative at the telephone number listed below.

RASANEN -- 09/647,784
Client/Matter: 060258-0273950

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP

CHRISTINE H. MCCARTHY

Reg. No. 41844

Tel. No. 703 770.7743

Fax No. 703 770.7901

Date: August 4, 2006
P.O. Box 10500
McLean, VA 22102
(703) 770-7900